AMENDMENTS TO THE SPECIFICATION:

Replace the paragraph beginning on page 12, line 1, with the following amended paragraph:

In FIGS. 4a-b, another method for the fabrication of photo-patterned (pixelated) polarizers in accordance with this invention is shown. The thin film polarizers are prepared by evaporation of the LLC isotropic solution onto a photo-alignment layer. In this procedure, an initially isotropic solid film exhibiting photo-induced optical anisotropy is used as an alignment layer. The photo-induced anisotropy and the absorption dichroism are formed in the alignment film as a result of the reversible (photochromic) or irreversible ~~(photochemical) reactions~~ photochemical reaction, or molecular ordering of certain organic photochemical substances. When the molecules absorb either polarized or non-polarized quanta of light, a molecular order is formed on the surface and in the bulk of such a photo-alignment layer. The degree of molecular order depends on the exposure energy, while the direction of the preferred molecular orientation is defined by the polarization vector and the plane of light incidence.

Replace the paragraph beginning on page 12, line 12, with the following amended paragraph:

Due to the molecular dispersion forces between the photo-alignment film and the lyotropic liquid crystal, a homogeneous orientation of the whole lyotropic layer can be made possible. It has been discovered that certain organic photochemical stable substances, illuminated by a polarized or non-polarized light, show a much higher degree of induced molecular order than that found in an active photochemical molecular layer. The molecular

order, which was evaluated by the photo-induced optical anisotropy, becomes saturated in the ~~photo-chromic~~ photochemical stable substances. This is contrary to the case where the molecular order is due to the ~~irreversible~~ photo-chemical reaction. In the latter case, the induced optical anisotropy decreases for sufficiently high exposure energy, i.e. the molecular order depends on the exposure energy critically.

Replace the paragraph beginning on page 14, line 4, with the following amended paragraph:

After the steps II and III have been completed (FIG. 4a), the local polarization axis 408 is formed in the illuminated regions of the thin film 407 (FIG. 4b), and the regions 409 where they are not illuminated show a random axis orientation. The isotropic solution 410 of the lyotropic liquid crystal 411 is then coated onto the top of the photo-alignment layer. The lyotropic nematic ordering is restored at a certain concentration of the solvent. The desired concentration is achieved after the partial evaporation of the solvent 412, giving rise to the formation of a viscous gel film 413. The local orientations of the lyotropic molecules 414 are influenced by the local molecular order 409 in the photo-alignment layer 407. The baking-out of the solvent 415 from the lyotropic film 413 is made using a heater 416. This results in the formation of a highly ordered film 417 ~~of~~ on the basis of substances, capable of forming the lyotropic liquid crystal phase with a high extinction ratio.